Fundamentals of Total Quality Leadership

Module 2: Quality Improvement Teams

Instructor Information

Lesson Outline

Lesson Objectives

By the end of this module the student will be able to:

EO 2-1 Explain the purpose and structure of quality improvement teams.
EO 2-2 Explain the benefits of the quality improvement team structure.
EO 2-3 Describe the roles and responsibilities of the Executive Steering Committee (ESC), Quality Management Board (QMB) and Process Action Team (PAT).
EO 2-4 Describe the roles and responsibilities of the TQL Coordinator, Quality Advisor, Downward Link, Team Leader, Recorder, and Team Member.

Length of Instruction

This module takes approximately 2.5 hours

Methods of Instruction

Lecture, videotape, and discussion

Instructor Information (continued)

Media Required

Overhead projector, screen, video cassette recorder, television monitor, chartpack, and felt-tip pens

Videotape

“Paradigm Principles”

Additional Reading

Managing the white space. Rummler, G.A. and Brache, A.P. (January, 1991). Training, 55-69.

Fundamentals of
Total
Quality
Leadership

Module 2

Quality Improvement Teams

Fundamentals of Total Quality Leadership (FTQL)

Module 2: Quality Improvement Teams

In this module you will learn the roles and responsibilities of quality improvement teams. We will also discuss the roles and responsibilities individuals have on teams and the various support positions needed for successful quality implementation.

Learning Objectives

By the end of this module the student will be able to:

- **Explain the purpose and structure of quality improvement teams**
- **Explain the benefits of the quality improvement team structure**
- **Describe the roles and responsibilities of the Executive Steering Committee (ESC), Quality Management Boards (QMBs) and Process Action Teams (PATs)**
- **Describe the roles and responsibilities of the TQL Coordinator, Quality Advisor, Downward Link, Team Leader, Recorder, and Team Member**

Learning Objectives

By the end of this module the student will be able to:

- **Explain the purpose and structure of the quality improvement teams**

After discussing the traditional organizational structure, you will learn about the need for organizing into teams.

- **Explain the benefits of the quality improvement team structure**

You will learn about the quality improvement team structure used for process improvement. You will see how these teams interact with each other and the chain of command.

- **Describe the roles and responsibilities of the Executive Steering Committee (ESC), Quality Management Boards (QMB), and Process Action Teams (PAT)**

You will learn the specific roles and responsibilities of the various quality improvement teams.

- **Describe the roles and responsibilities of the TQL Coordinator, Quality Advisor, Downward Link, Team Leader, Recorder, and Team Member**

You will also learn about the primary team roles and support roles.

Video...

"Paradigm Principles"

Video: "Paradigm Principles"

Video: Show the video "Paradigm Principles"

Time: 37 minutes

Discussion Questions:

1. **How do you think the concept of the paradigm shift applies to the Department of the Navy?**

- *A new skipper on board often means a new paradigm.*
- *The old style of management must change.*
- *The very things that made management succeed before will make them fail now.*

2. **What are some of your own barriers to innovation?**

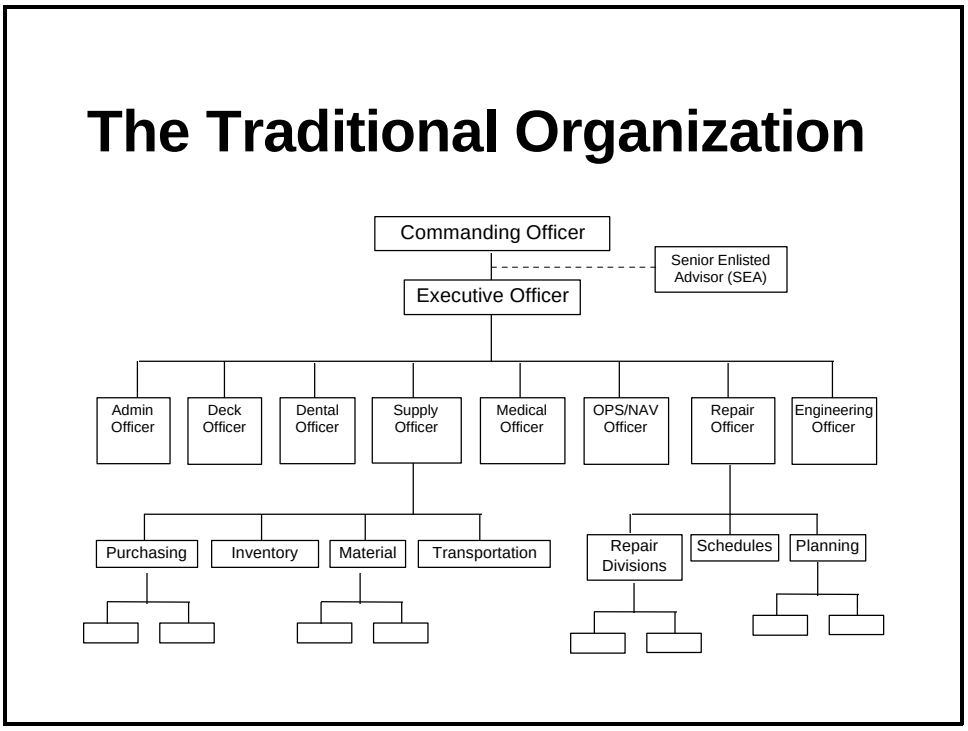
- *Feeling comfortable with the status quo*
- *Ego*
- *Discounting an idea because of the person who said it*
- *Fear*

3. What strategies have worked for you in the past to overcome your barriers?

- *Decided to take a risk*
- *Compared what you had to lose with what you might gain*
- *Kept an open mind, especially when dealing with someone we didn't like*
- *Got feedback to help us change*
- *Not being closely associated with the subject*
- *Went to a new place and the old strategy doesn't work*
- *Persistence*

4. What are some shifts we are asking people to make in TQL?

- *Accepting feedback*
- *Receiving information from below as well as from above*
- *Looking at processes and analyzing them instead of inspecting products*
- *Analyzing processes instead of evaluating individuals*
- *Focusing on prevention instead of inspection*
- *Making decisions based on data instead of on hunches*
- *Emphasizing leadership and seeing managers as leaders*
- *Working in teams instead of individuals or superstars*



The Traditional Organization

The traditional formal structure of an organization, as shown in this viewgraph, describes the authority relationships in the organization. This organization chart does not portray how work is done, what is produced, or who the customers are.

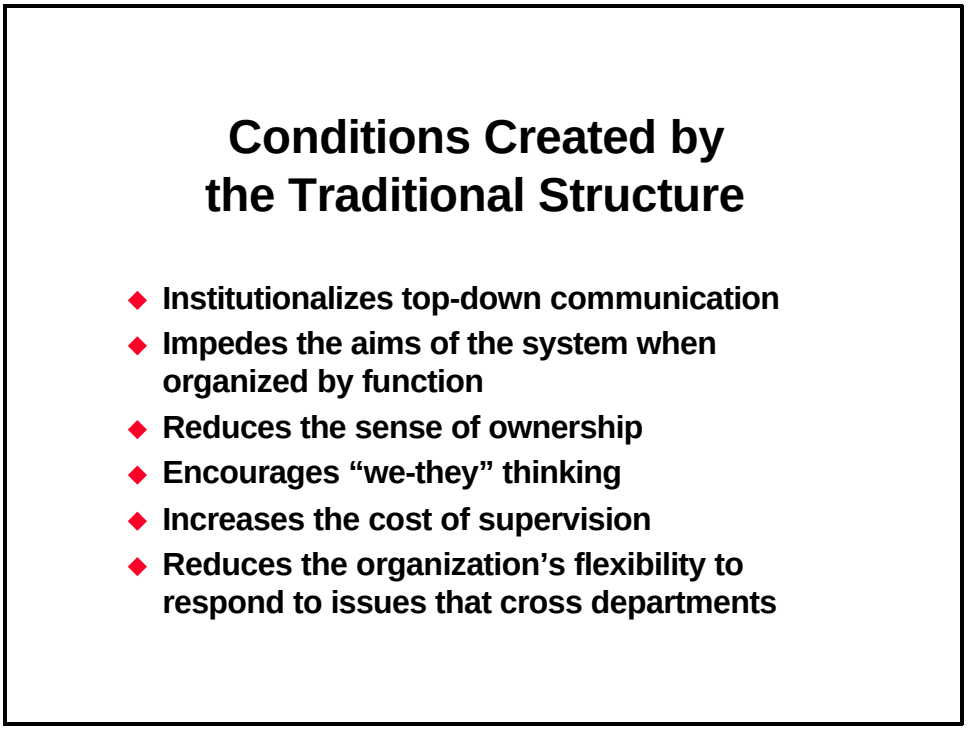
The diagram represents a typical organization. At the top is the commanding officer, and below are the various levels of management.

Let us suppose a customer of this organization received an incomplete shipment of supplies. This problem might involve several functions within the organization. The obvious place to begin looking is inside the Material branch of Supply Operations, because this branch keeps material ready for issue. All the processes associated with issuing material could be examined to determine what type of problem was causing the defect -- an unfilled order.

On investigation, it might be determined the needed supplies were not in inventory. Is this an inventory problem or a purchasing problem? Perhaps the item was rarely ordered and the long-term planners (planning function) did not anticipate the need. As you can see, the root cause of the problem could be anywhere.

Most importantly, the organizational structure might help place blame for the problem, but doesn't really help solve the root cause to prevent the problem from happening again.

The traditional military structure is linked vertically through the chain of command. This type of structure historically has been the most effective way to transmit the message of the leader down through the organization. Downward communication is necessary and effective during combat when timely response and control are required. However, during peace times and in production environments, this organizational approach creates some problems.



Conditions Created by the Traditional Structure

- **Institutionalizes top-down communication**

The traditional organization is hierarchical in that it provides a very efficient reporting structure for **top-down communication** . People of higher rank and authority communicate policy and information down through the organization.

This authority structure often institutionalizes the practice of one-way communication which creates barriers to upward communication.

- **Impedes the aims of the system when organized by function**

The traditional organizational structure is arranged by **function**. Unfortunately, what typically happens is each department behaves like a separate entity to preserve its own life. While this hierarchy is a highly effective way to transmit information from top to bottom, it is not always the best way to communicate **across** functions. With the traditional structure, people seldom consider how the actions of one function or department affect other departments or the organization as a whole. These unseen horizontal barriers across the organization are major contributors to suboptimization.

- **Reduces the sense of ownership**

When work is functionally organized and managed by department, it is difficult for employees to see their individual contribution to the aims of the organization. When the product leaves the department, any feeling of ownership goes with it. When the work on the product is fragmented, this also reduces employee feelings of ownership.

Reducing the employee's sense of ownership often results in feelings that best efforts have little or no effect on the finished product that goes to the customer. An understanding of how the product contributes to the organization's aims can be important in determining how the employee approaches work.

- **Encourages "we-they" thinking**

Downstream problems can often be traced to earlier stages in the process. But, the **upstream supplier** often does not know the needs of the **downstream customer** . Needs can't be communicated easily when employees are both physically and organizationally separated.

Organizational separation often leads to **"we-they"** thinking, which further reduces communication. Ironically, reduced communication can occur even when both the upstream and downstream workers are doing their best. **Doing one's best** often does not lead to the results that might be achieved by communicating and working together.

- **Increases the cost of supervision**

Historically, supervision was based on the idea that individual employees had limited knowledge of the whole process, so they could not make appropriate decisions on work flow. A supervisor would oversee work for both quality and process flow. The idea of **span of control** developed since a supervisor could oversee only a few employees at a time.

The idea of span of control led naturally to systems of supervisory compensation based on the number of employees supervised. Such a compensation system does little to encourage improvement in work processes or allow qualified employees to exercise autonomy in their work. Instead, it may add more paperwork to the process and can increase the number of employees. This, in turn, increases the total cost of supervision. Unfortunately, many people in management and leadership consider this strategy a legitimate one for advancement. This attitude creates **silos** and promotes tendencies toward empire building.

- **Reduces the organization's flexibility to respond to issues that cross departments**

Traditional bureaucratic structures are highly rigid which reduces the organization's flexibility to respond to issues and make decisions that cross departments. The silo culture forces most decisions upward. Then decisions are passed back down to the level of the workers. Managers spend much of their time trying to solve many problems that could be solved at lower levels in the organization. When people try to improve the process, they meet barriers because the structure lacks the required flexibility to allow lower-level people in the organization to make decisions. As a rule of thumb, commands need to be able to make decisions at the lowest possible level and be able to shift control to a higher level if required. Flexibility in decision-making will allow this to happen.

Sometimes managers can't agree on issues that cross departments. These issues don't get resolved and can often lead to more problems for the organization (Rummler and Brache, 1991).

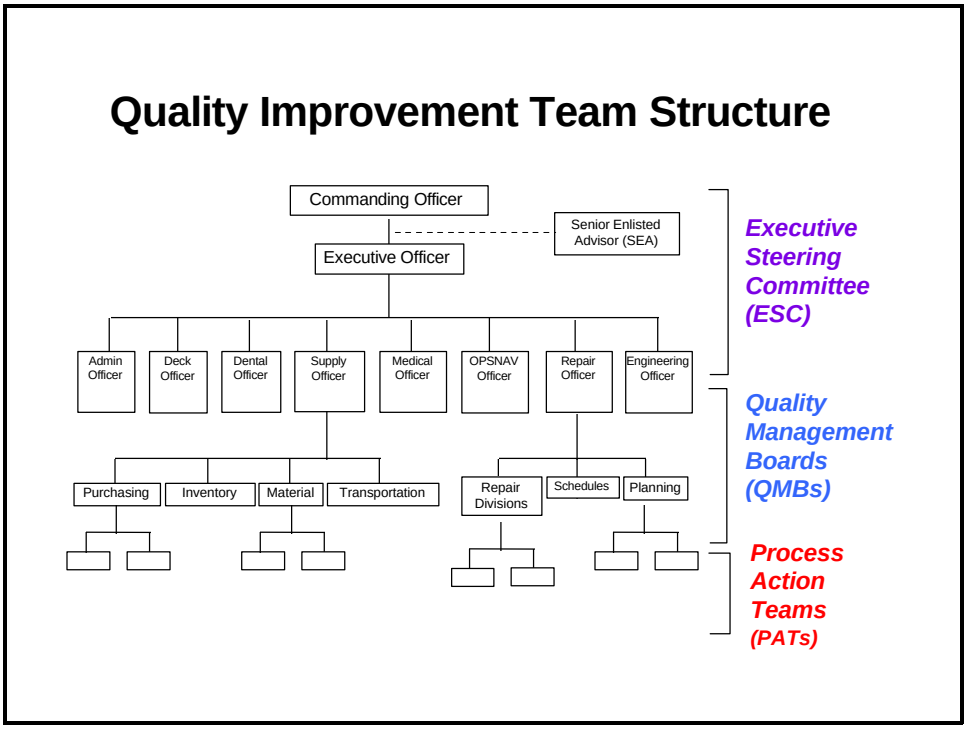
Obviously, this traditional organizational structure sets up barriers to process improvement. In the example of an incomplete shipment of supplies, how would you go about investigating the cause or causes of the problem? How could we improve the process so the problem does not occur again?

Obstacles can be overcome when departments focus across the process and work together in **cross-functional teams** toward common goals. We need to organize around processes so that:

- The chain of command is maintained,

- The organization is process-oriented, and

- The organization is linked horizontally and vertically for communication and decision-making.



Quality Improvement Team Structure

The DON has developed a team structure known generically as **quality improvement teams** . The primary focus of these teams is to improve the quality of the command's significant processes, not to address everything the command does in one large effort. The quality improvement teams are designed to complement the traditional command structure by increasing the interaction and cooperation between departments without compromising the chain of command. In fact, authority to act comes to the teams through the chain of command. The quality improvement team structure is not intended to produce a shadow organization. This structure recognizes that improvements occur based on work processes (**across** departments) rather than work function (**within** a department). People who work on different parts of a process may be teamed together to design and implement improvements.

There are three different types of teams in the DON quality improvement team structure. Each type of team has specific responsibilities in supporting the **aims of the command** . First, we will identify who serves on each type of team. Then we will cover the different activities for which each of the teams is responsible.

- **Executive Steering Committee (ESC)**

Membership in the Executive Steering Committee (ESC) is drawn from the **top leaders** of the command. Responsible for the effectiveness of the mission or meeting customer requirements, they are the **system or resource owners** .

- **Quality Management Boards (QMBs)**

Quality Management Board (QMB) members are typically mid-level leaders and managers in the command who are accountable for how work is accomplished. They are the **process owners.**

- **Process Action Teams (PATs)**

Process Action Team (PAT) members are normally members of a functional work group **who work in a particular stage of a process.**

Note: Although a team oriented approach is used to improve all processes, the quality improvement team structure is designed around significant processes. Use of QMB and PAT terminology on other than significant processes confuses people and dilutes the vital command level cross-functional perspective and the management of participation. If you find you need a team to solve a particular one-time problem, fine -- have a problem-solving or "tiger" team, but don't call it a PAT or QMB.

Team Approach to Managing Quality

It is difficult to provide quality products and services effectively and efficiently when an organization is **structured to manage discrete functions**. The traditional organization chart depicts these functions, shows the relationships of one to another, and indicates something about the complexity and size of the organization.

The article, *Managing the White Space* (Rummler & Brache, 1991), provides a comprehensive review of how teams can be designed to optimize the system. Rummler and Brache discuss impediments created by the traditional approach to managing and offer a solution: **cross-functional teams for managing processes.**

Leaders need to understand their role in process management, but many do not. Rummler and Brache state, "[Leaders] don't understand, at a sufficient level of detail, how their companies get products developed, made, sold and distributed" (p. 55). Organization charts may contribute to this problem. Rummler and Brache explain that **the organization chart does not address the issue of managing quality**. It fails to show the processes that exist in the organization, who is responsible for them, and how the work is accomplished. Only by knowing these things can quality be managed to make lasting improvements.

The structure doesn't show the products or services we provide [what we do]. It leaves out the customers we serve [for whom we do it]. And it gives us no sense of the work flow through which we develop, produce and deliver our products [how we do it] (Rummler & Brache, 1991, p. 56).

- **Complements the chain of command**

Cross-functional teams must be consistent with and support the chain of command as reflected in the traditional organization chart.

> The organization chart is a valuable administrative convenience... it shows which people have been grouped together for operating efficiency and it shows reporting relationships (Rummler & Brache, 1991, p. 56).

Although leaders recognize the strengths that this hierarchical structure provides, it is paramount that leaders also recognize the inherent weakness this structure creates. By thinking that the organization chart shows "the 'what, why, and how' of the business," leaders will fail to recognize that "it is the organization chart, not the business, that gets managed" (Rummler & Brache, 1991, p. 56).

Leaders need to recognize that teams must be structured to reflect the **chain of command** . However, teams also have to be structured to accommodate the **horizontal flow** of processes. A proper balance between the vertical orientation and the horizontal orientation is key.

- **Focuses on significant processes**

Team design should be oriented around the command's significant processes. These teams will be cross-functional. In so doing, you **integrate the horizontal perspective** , with its emphasis on significant processes, with the vertical perspective, which reflects the chain of command and the functional alignment of the organization. There are several important reasons for this.

First, the horizontal perspective highlights how the important, mission essential work of the command flows from one functional area to the next. These transitional areas are what Rummler and Brache refer to as **white spaces** (functional interfaces). The authors feel that "the greatest opportunities for performance improvement often lie in the **functional interfaces** -- those points at which a baton is being passed from one department to another" (p. 58).

Second, cross-functional teams capitalize on the **internal customer-supplier** relationships by putting the customers and suppliers on the same team. When one recognizes that processes cross functions, or organizational boundaries, it is easier to recognize that the output from one functional area becomes the input to the next functional area. Thus, internal customer-supplier relationships are recognized. Leaders and managers are obligated to understand the needs of both the internal and external customers who receive their department's outputs. In doing so, they can begin to effectively span the white space on the organization chart.

Although the extended process is typically cross-functional, it is not unusual for a given **stage** of the significant process to be operating totally within one of the functional areas. Thus, teams can also be contained within a single function, but require careful coordination, from a systems perspective, to avoid suboptimization. Even within a **functional team** , it is conceivable that the team members have a customer-supplier relationship, i.e., between divisions or branches.

- **Builds upon joint ownership of the process**

A well-established principle of organizational change is that change is most readily accepted and implemented when it is designed and developed by those who own that which is changed. Because all significant processes within the organization are candidates for change, it is only reasonable to assume that most leaders and managers will be on teams working toward improving processes for which they are already responsible. Working to improve one's own process is one of the important differences between TQL teams and problem-solving teams.

Team design must promote ownership. People who own the various parts of the process (**process accountability**) and those who work day-to-day in the process (**process workers**) all have a vested interest in the process. Their sense of ownership and sense of pride and concern are more likely to be reflected in the quality of process output.

When working in a cross-functional team, the team members develop an understanding of internal customer-supplier relationships between departments. They come to see each other as customers and suppliers. As a collective group, they are **accountable for the process** and will begin to work for one aim. Since a significant process is critical to the command's mission, cross-functional teams are permanent in that they work continuously on improving enduring processes.

Process workers also have a sense of ownership. They usually have the best understanding of how the process operates **within their functional area** , and with this knowledge and process data, can contribute ideas about how to improve processes. Thus, workers in the process must also be considered in team design to ensure they are active contributors to process improvements. But a word of caution, process workers may know what process improvements are best at their level, but usually lack the larger understanding of how what they do affects overall system performance. For this reason, teams comprised of process workers should work under the direction of cross-functional teams.

◆ **Facilitates vertical alignment and horizontal integration**

We will discuss in Module 3-1 (Systems), that a **system** is defined as *a series of functions or activities . . . within an organization that work together for the aim of the organization*. The working together is the result of both the vertical alignment and horizontal integration of layers and functions of the organization.

- **Vertical alignment for communication, delegation, empowerment, and decision-making**

The chain of command provides vertical alignment which is maintained by a hierarchical linking of teams in the organization. Linkages ensure the systems perspective is maintained while also providing a means for effective communication and decision-making among organizational levels. It is the responsibility of leaders to identify those individuals in the chain of command who will work with teams and be responsible for maintaining the systems view.

- **Horizontal integration for process improvement**

From a systems view, to achieve horizontal integration, it is necessary to understand the flow of work *across* the organization. "A primary contribution of a manager at the second level or above is to manage interfaces. The boxes [in the organization chart] already have managers. The senior [leader] manager **adds value** by managing the white space between the boxes" (Rummler & Brache, p. 58). (Emphasis added.)

Some departments may have to operate in a way that may be considered less than optimal for them, yet from the systems perspective is optimal for the organization. Only through a systems perspective can leaders understand this and manage accordingly. Leaders must also ensure that personnel within departments who are directed to operate at less than optimal levels are not punished or negatively affected by their compliance.

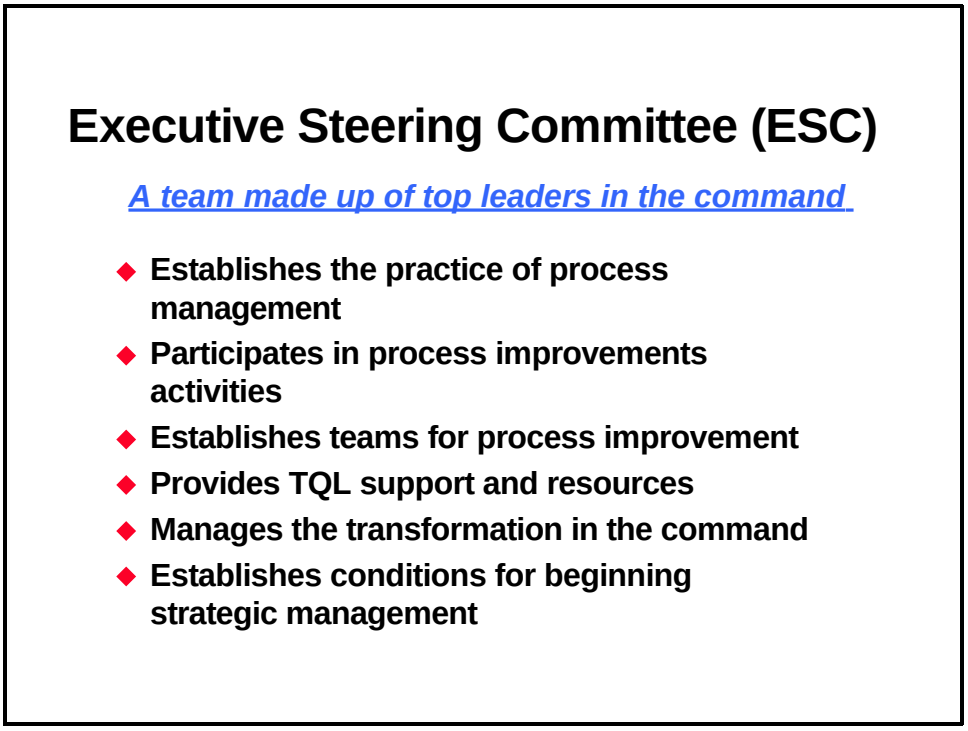
Teams cannot operate independently when the aim of the system is to meet customer or mission requirements. An implication for leaders is that the "right team(s)", for the purpose of making process improvements, cannot be formed until the organization is understood as a system.

- **Is customer driven**

Without customers or a clear mission, you could be out of business. Teams need to be designed around those processes that meet customer needs and criteria for mission effectiveness.

Leaders must learn who their customers are, listen to them, and help them determine what they need from the organization. A team structure must, therefore, incorporate a process for communicating with customers. Teams must look at how customers describe quality and translate the customers' descriptions of quality into measurable characteristics the organization can provide.

Some operational units may not have readily identifiable customers and therefore might rely instead on mission performance effectiveness criteria rather than customer requirements. These criteria could be drawn from readiness measures, information from operational evaluations, or other inputs regarding mission performance.



Executive Steering Committee (ESC)

A team made up of top leaders in the command

The top leaders in any command are responsible for its mission. Because TQL is directed at mission effectiveness, the ESC draws its membership from the top leadership of the command. Since the ESC is composed of top leaders, there is only one ESC in a command and it is chaired by the commanding officer.

By virtue of their positions, the top leaders are the only members of the command who can observe the behavior of the whole system and have the authority to act to effect organizational changes. The leader has the responsibility for understanding how the command operates as a system and for selecting the members of the ESC to reflect this system.

It is not unusual for the ESC to be composed primarily of those who head major departments. The ESC usually includes the executive officer or deputy and the command master chief (or the command sergeant major in the USMC) as ESC members. If there are employees represented by unions, then union leaders should also be considered for ESC membership. A TQL environment requires fostering a positive working relationship between union and management at all levels of the organization.

The ESC should be large and diverse enough to achieve an understanding of the system and its interrelated parts, but small enough to work as one communicating unit.

◆ **Establish the practice of process management**

The ESC sets the stage for the transformation to a total quality organization. The transformation begins with improving those significant processes in the command that result in improved customer products and services and/or mission effectiveness. TQL redefines and expands the job of the leader to include establishing **the capability for and leading the practice of process management**.

In Module 1 (DON Quality Approach) we discussed the importance of reducing variation through continual process improvement. The ESC is collectively responsible for all of these efforts. The following specific process improvement activities must be **initiated and practiced by the ESC.**

- **Identify and prioritize customers.**

  Recall that the definition of TQL states you must *meet the needs of the end-user (customer) now and in the future*. This begs the question, "Who is the customer?" Who is the end-user? If you are to meet customer and end-user needs, then you need to identify who your customers and end-users are. Thus, to begin practicing TQL means you must begin with the customer.

  One of the first responsibilities of the ESC is identifying the command's external customers. One way to do this is to ask, "What does the command produce or deliver?" or "What services do we provide?" "To whom do we supply these products or services?"

  Identifying external customers is not always easy. It may be necessary to back up and re-examine the command's mission and ask, "What is our mission and for whom do we carry out this mission?" Another approach might be to ask, "If a customer or mission requirement went away, would it affect our reason for being as a command?...our purpose for existing?...our system's aim?" Once the external customers have been identified, the ESC is responsible for prioritizing the customer list in order to determine the command's **significant** customers. (Customers are not always equal.)

- **Develop an active customer feedback system.**

To produce a quality product or service, it is necessary to know your customers' quality requirements and/or the command's mission requirements. This is determined from customer feedback or input received on mission effectiveness criteria. The role of the leader is to participate with the ESC in developing an active customer feedback system. The goal of this system is to learn more about your customers. How do your customers use your products or services? Question your customers about what they find positive about your products or services and about what things they would like to see changed. Because the focus is going to be on process management, this type of questioning is not a one-time event. As each incremental process improvement is made, actively elicit the customers' reaction to your efforts.

- **Identify and prioritize customer requirements.**

Feedback from the customer is often in ambiguous terms. For example, customers might define requirements in terms such as "on time," "smooth," "effective," and so on. These are outcomes for which customers are looking. However, what do customers really mean by these terms? The ESC and QMBs must work with your customers to understand what these requirements mean to them. These requirements also need to be prioritized.

- **Determine and operationally define customer quality characteristics.**

Once you know the customers' requirements or mission effectiveness performance criteria, these **quality characteristics** must be **operationally defined** in terms that enable the command to develop measures to indicate whether or not the customers' requirements are being met. For example, the requirement of "on time", has no specific meaning unless it is translated (operationally defined) into a quality characteristic such as "delivered by 0800 daily." A command can take data to determine if deliveries were achieved by 0800 daily. A command cannot take data for "on time" if it does not know when "on time" occurs.

Once there is an understanding of the customers' **quality characteristics** , you must operationally define these characteristics so that measures can be developed to enable the command to assess whether or not it is meeting the customers' requirements.

- **Identify processes that affect quality characteristics.**

  Once the quality characteristics are determined, the ESC must identify the processes that are responsible for producing or providing those characteristics. Most likely, your customers have indicated several desired requirements. This may translate to identifying several process stages.

  The ESC is responsible for identifying and prioritizing the significant processes responsible for meeting the customers' needs and/or mission effectiveness criteria.

◆ **Participate in process improvement activities**

Leadership responsibility requires active participation in initial improvement efforts. This will help senior leaders understand the command better as well as help understand what is involved in process improvement. It will also demonstrate leadership commitment to making fundamental changes in how the DON conducts business.

The ESC's commitment does not end after the initial improvement efforts are underway. The ESC must stay up to date on the command's external customers, continue to explore what customers want, and further identify the significant processes that meet additional customer needs.

◆ **Establish teams for process improvement**

The ESC identifies Quality Management Board (QMB) members. A QMB is formed when the ESC is ready to initiate a cross-functional process improvement effort. The membership of any particular QMB is determined by identifying those key people who have a stake in the process, the **joint owners** of the process.

One method for identifying the membership of a QMB is through the use of a macro flow chart. As you will learn in Module 5 (Basic Process Improvement Tools), a macro flow chart is used to visually depict a process. From the series of major steps illustrated by the macro flow chart, the ESC can identify the various departments through which the process flows.

Since the process owners in those departments are accountable for their individual part of their department's functions, they are the most appropriate candidates for the QMB. Therefore, the QMB members for the identified process are those cognizant mid-level leaders and managers who have a role in producing the product or service. As a collective group, they are accountable for the process.

The ESC is responsible for ensuring that QMB members are selected based on who is accountable for each major step of the significant process. Once the QMB members are identified, the ESC **charters** a QMB to work on the identified process. Charters are like contracts. They should clearly define why the team was established and what outcomes are expected. And, like a contract, a charter can have several elements. This topic is covered in greater detail in the *Team Skills and Concepts* course.

Once a QMB has been chartered, the major portion of the work responsibility **moves from the ESC to the QMB** . Authority for the QMB to conduct process improvements is through a formal written charter. The ESC is responsible for ensuring that a formal charter is developed before a QMB begins its work.

★ **Additional Information** : The charter should clearly define the reason the team was formed. Charters should include:

- The purpose for the team
- The means for assessing the current situation
- The boundaries or limits for the process improvement efforts
- Related products and processes
- Who has responsibility and authority to carry out the improvement efforts
- Membership
- Reporting requirements
- Time frame

Additional information on charters can be found in the *Team Skills and Concepts* course and the *Implementing TQL* course.

◆ Provide TQL support and resources

The ESC is responsible for providing the QMB the necessary resources to fulfill the requirements identified in its charter. Resources may be in the form of funding, personnel, time, education, and training.

Because the ESC has delegated authority to the QMB, it is expected that the ESC will support decisions made by the QMB. These decisions will probably involve some changes to a process. It is the responsibility of the ESC to see that any process changes considered by the QMB do not suboptimize the performance of the command (the system).

In order to train all teams, assistance is required in providing TQL education and training. The number of people needed is determined by the size of a command. The ESC is responsible for identifying people to assist with these activities and ensuring that they have the necessary education and training to carry out their roles. The ESC is responsible for ensuring that education and training are provided to those individuals who work on teams.

◆ Manage the transformation in the command

Changing the way in which the work in the command gets done affects how people interact. In addition, teamwork and delegation of authority may be foreign to particular commands. Ways for dealing with these changes are addressed in the *Team Skills and Concepts* course.

As the command becomes involved in the first phase of TQL implementation, roadblocks will be encountered that are outside the control of the command. Senior leaders should communicate these issues up the chain of command to the level of authority at which they can be addressed.

As the ESC moves forward in the implementation efforts, processes become more effective and efficient, and people's time and other command resources become more available. The ESC is responsible for providing training to these workers to enable them to be productive in another area of the command. Part of the cost savings from improving processes should be reinvested in training.

- **Establish conditions for beginning the practice of strategic management**

As process management becomes an everyday way of life in DON commands, we will begin to link measurement systems (established for process improvement) to our missions and long-term goals for meeting customer requirements now and in the future. This “strategic management” approach will require ongoing process management at all levels as well as strategic planning by Echelon 1 and 2 commanders to establish system-wide policies and practices that support lower-level efforts.

Quality Management Board (QMB)

A cross-functional team of process owners

A QMB is a **cross-functional team** of process owners who are jointly responsible for managing a significant process that leads to a given product or service. Each team member should have some ownership in the success or failure of the process.

When teams are organized cross-functionally, team members become each other's customers and suppliers as the product or service moves from one organizational entity to the next; thus, the team members are an internally linked customer-supplier team.

A QMB is chartered when the process associated with a mission requirement, the significant process, has been prioritized and selected for improvement. The charter provides the basis for all QMB efforts related to quality improvement. A QMB's charter is only recalled if the command's mission changes or if a customer no longer needs the product or service because its own mission has changed. A QMB is usually considered a permanent team since it is chartered to improve a significant process. Team members are typically mid-level leaders or managers. Since a QMB is composed of process owners, the members are collectively responsible for the process and for providing needed coordination.

Because a command usually has several significant processes, it will eventually have several QMBs. Note, however, success in implementing TQL is **NOT** measured by the number of QMBs in a command. It is measured by how well **significant processes** are meeting customers' needs and/or mission requirements. It is far more desirable to have three or four QMBs working on the most significant processes in the command, then to have 10 QMBs working on the wrong things.

Some ESCs have inappropriately established high-level, hierarchical QMBs with a charter that defines an **issue** such as "Quality of Life," "safety," or "morale," rather than a **system**. **An issue is neither a system nor a process** and should not be the focus of a QMB. An issue can be recognized by our inability to describe it in a coherent flowchart. **Systems and processes can be flow charted, an issue cannot** .

The task of defining the processes or systems which impact on an issue belongs to the ESC. A team which is given such a task is performing an ESC responsibility and it should not properly be called a QMB. A QMB addresses a single significant process (network of stages) or system (network of processes).

- **Describes the significant process**

When the ESC charters a QMB, it forwards, as part of the charter, the macro-level flowchart produced earlier by the ESC. One of the first activities of the QMB is to flesh out this flowchart to more fully describe the process as it is currently running. Since the QMB is composed of the process owners, they are in the best position to do this. Remember, these owners are from the different functional areas through which the process flows.

A tool used to flesh out the process is a "mini-level" flowchart, to be discussed in Module 5. When this more detailed flowchart is completed, the QMB may find that the make-up of its membership may need to be revisited to ensure that the QMB is composed of the appropriate process owners. A deployment flowchart, which will also be discussed later in the course, can be used to identify process ownership more precisely. Any recommended changes to the QMB membership should be presented to the ESC so that the QMB charter can be revised to reflect any needed membership change. Looking at the process using the flowchart also helps the ESC to understand where the white spaces exist in the command.

- **Simplifies and standardizes the process**

After a detailed flowchart of the process is complete, the QMB can begin working on simplifying the process by removing non-value added steps and solving obvious problems. Ways to simplify the process will be discussed in Module 5 (Basic Process Improvement Tools).

During this time, the QMB is responsible for collecting baseline data on process outcomes, process output, and at those points in the process that produce customer product or service requirements. When it is time to begin collecting data, the QMB may need to charter one or more Process Action Teams (PATs) to assist in identifying areas for measurement.

Simplification means change. Change means that there is a different process. To **standardize** the new process, the QMB will need to provide training in the new procedures. This may require formal training or it may be a matter of revising instructions. This change will also have to be documented as appropriate in standard operating instructions or manuals.

- **Stabilizes the process and checks for capability**

After simplifying the process, the QMB works with its PAT(s) to stabilize the process so that its output can be predicted. Once the process is stabilized, the joint owners can begin to work on improvements that make it capable of producing what customers want.

Data will be evaluated to ensure the process is capable of meeting customer requirements or mission effectiveness criteria. In Module 3-3 (Variation), you will be introduced to tools which will help to monitor processes for predictability and continuous improvement.

The goal is to move the command beyond problem solving by thinking in terms of process management. Once capability is achieved, the process needs to be standardized.

- **Begins continual process improvement**

Once the QMB has simplified, standardized, and stabilized the process, its prime responsibility becomes the practice of continual process improvement. As process owners, the QMB members are in the best position to refine the planning details for designing, testing and evaluating changes in the process. While discussing potential process changes which must be generated from process data, the QMB must never lose focus of the continual process improvement concept.

The members need to ask, "What process improvements are required to meet customer requirements or mission performance effectiveness criteria?" Working with PATs as necessary, the QMB will continue to identify and define the appropriate process and output measures using the PDCA cycle.

Based on data collected by themselves or PATs, the QMB is responsible for evaluating the effectiveness of any changes to the process under study. Before they permanently introduce changes to the process, the QMB team leader must ensure that no other part of the process or system is suboptimized.

- **Coordinates cross-functional efforts**

QMB members, by virtue of their leadership and management positions within the command, are collectively responsible for keeping a systems perspective on any actions taken to improve the significant process. Therefore, an important responsibility of the QMB is to coordinate the cross-functional process improvement efforts while keeping a systems view.

  - **Hierarchical QMBs (QMBs chartered by QMBs) only as necessary**

    When a process is very large or very complex, an analysis may reveal the need for a multi-level (hierarchical) QMB structure. The purpose of the higher level QMB is to manage and understand the integration and optimization of the larger system. In effect, the higher level QMB is managing a network of processes (a system).

    A QMB should not charter a lower-level QMB simply to have another team do its work. One way to check the validity of the need for a lower-level QMB is to compare the proposed charters between the two levels. Lower-level QMB's should have a charter that defines a distinct process which is just one part of the system defined in the higher-level QMB charter.

When hierarchical QMBs are established, a primary role of the higher-level QMB is to ensure the efforts of the lower-level QMB optimize the larger system.

- **Reporting impediments and problems to the next higher level**

The cost or scope of a proposed process change may be beyond the authority spelled out in the QMB's charter. When this happens, the QMB is responsible for taking these issues to the ESC (or higher QMB) for resolution. The QMB provides the ESC with the proposed recommendations for action and the data to substantiate the recommendations.

◆ **Charters Process Action Teams (PATs) as required**

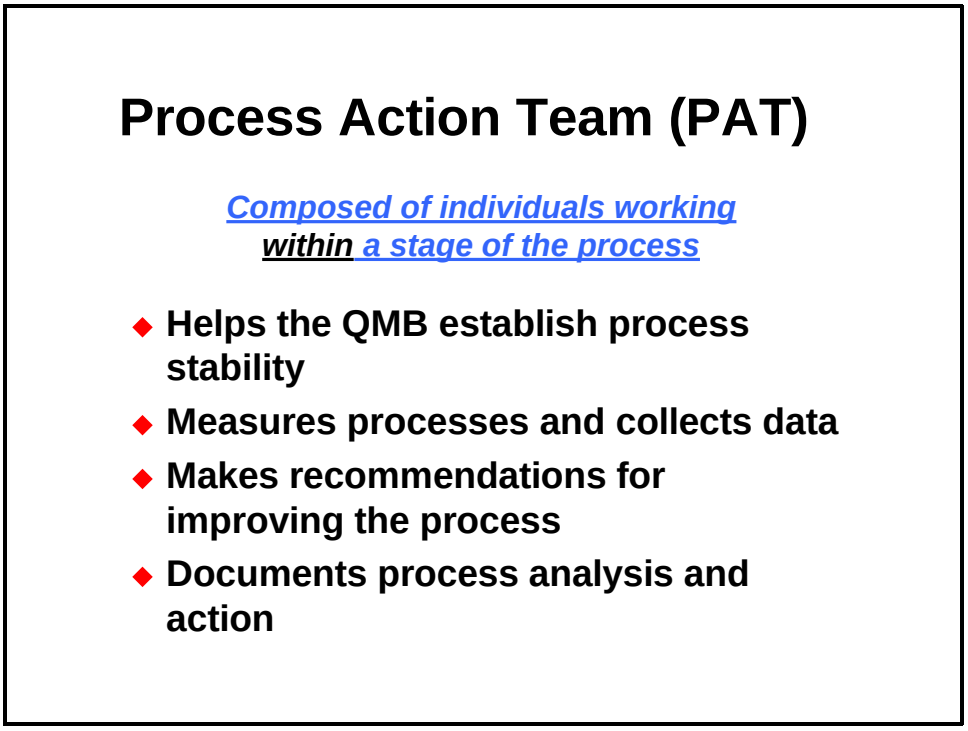
A QMB charters a PAT (or PATs) when it needs help in describing the actual process, identifying quality measures for a stage (or stages) in the process, collecting data, or summarizing the data **within a functional area** . PAT members should be selected based on: (a) their knowledge of the process, and (b) their proximity to the point in the process where data are collected.

The QMB works with the PAT (or PATs) as necessary so everyone develops in-depth knowledge of the process.

It is the responsibility of the QMB to ensure that it does not create a mirror of itself by delegating its own work to a PAT. When a command has hierarchical QMBs, only lower-level QMBs charter PATs. This preserves the chain of command.

The QMB is responsible for providing PATs with resources and decision support. The available resources and the PAT's level of responsibility must be spelled out in the charter provided to the PAT. **Chartering PATs is the responsibility of QMBs, not the ESC.**

★ **Additional Information:** A QMB lasts as long as the product or service is important to the organization. The processes are under continuous improvement. If the process is no longer strategically important to the organization, then the QMB's charter would be recalled by the ESC.



Process Action Team (PAT)

Composed of individuals working within a stage of the process

While the QMB membership is composed of process owners who manage work **on** the process, the PAT is composed of individuals working **in** a stage of the process. Process stages are within functional boundaries and, as such, are under the control of the managers of that function. Therefore, any given PAT is made up of individuals within a functional area or department.

The QMB may charter a PAT when the QMB identifies **a specific area** or **stage within the process** that needs investigation. Unlike the ESC and QMB, the PAT is a temporary team that comes together to look at a specific process measure or cause. The PAT activities are directed and supported by the QMB that has responsibility for working on the process.

◆ Helps the QMB establish process stability

PAT members work with the QMB to establish process stability. Team members further validate the "as-is" process and seek to simplify process operations at their stage by identifying any sources of delay or wasted resources and removing them. Any other problems requiring attention should be solved prior to determining stability through the use of control charts. It is important for PAT members to perform their tasks consistently.

Many specific problems are easy to spot by the workers in the process. Many of these can be immediately and easily fixed as long as this is communicated to the QMB and the fix does not suboptimize the process downstream.

The charter from the QMB permits the people working **in** the process to reduce or eliminate local problems within certain boundaries or limits.

The stability of a process depends on removing special causes of variation. Because many of these are "local" to the process itself, PATs are in a unique position to take action. However they must have the authority to act on these causes.

The authority to act on special causes and problems comes from the charter. This authority is given under the following general condition: **If the action taken can be seen to have no negative effects beyond the boundaries outlined in the improvement plan and is thought to improve that which lies within these boundaries, then authority to act is granted.**

◆ Measures processes and collects data

The PAT works closely with the QMB in developing measures that provide data to show whether the quality characteristics of the customer are being met. Together, they need to figure out what they should measure and how it should be measured.

Control charts or other tools are required to detect **special causes of variation**. As will be shown in Module 3-3 (Variation), data regarding process performance of the output quality characteristic must be gathered for a sufficient period to establish statistical control limits. Initially, these data may contain both special and common causes of variation.

★ **Additional Information:** The QMB and PAT must also decide on a standardized procedure for collecting data. Using a predetermined **sampling procedure** , they must collect enough of the relevant data to obtain a clear picture of process performance as discussed in Module 5 (Basic Process Improvement Tools).

◆ **Makes recommendations for improving the process**

Sometimes the PAT will be able to make recommendations concerning common cause variation based on data collected. PATs normally do not take action on common cause variation, that is the role of the QMB. Therefore, open and effective communication with the QMB is important.

Once process stability has been established, three primary tasks remain that may continue to be performed by PATs (or QMBs). These are: (a) routine collection, (monitoring) of process measures, (b) taking action on any new special causes of variation, and (c) determining whether the stable process meets customer requirements or mission effectiveness criteria.

◆ **Documents process analysis and action**

As the primary data collectors, the PAT members are responsible for keeping documentation on actions they have taken.

There are many ways for PATs to document process improvement activities. One tool teams can use is the Process Improvement Notebook (PIN). The PIN is a storyboard-format notebook designed to tell the process improvement story from initial actions to the improved state. Each section contains forms and instructions for how to complete the forms. Developed by and for DON personnel, the PIN is a free resource available through the TQLO World Wide Web page or electronic bulletin board.

TQL Coordinator

The organization needs a few specialized positions to support TQL implementation and quality improvement teams -- especially during early start-up activities. At a minimum, commands need a TQL Coordinator and one or more Quality Advisors. Depending on the size of the organization, some commands establish a TQL support office to include these positions. The TQL Coordinator reports **directly** to the Commanding Officer and, if required, manages the TQL support office.

For most organizations, the TQL Coordinator's role is a **full-time job**. The individual selected for this position should be someone who is respected by the leaders and other influential people in the command and who has the ability to communicate effectively with a wide variety of people in different settings. The TQL Coordinator's duties include:

- **Advises senior leaders in TQL implementation**

While the senior leaders are responsible for leading implementation, the TQL Coordinator plays a key role in advising the leaders. As Quality Advisor for the ESC the Coordinator provides help and guidance on implementation planning, application of the 14 Points, process identification, and other total quality implementation activities.

- **Conducts and coordinates TQL training**

Another primary responsibility of the Coordinator is to educate and train the ESC. *Senior Leader's Seminar* is the starting point of education for the CO, XO, and Command Master Chief. These senior leaders need further training in process management methods, team skills, and quantitative tools. The Coordinator also provides *Fundamentals* and just-in-time skills training to ESC members who do not attend *SLS.* Some Coordinators also train Quality Advisors and help plan and coordinate QMB, PAT, and command-wide training.

- **Coordinates Quality Advisor efforts**

This function is particularly important in large commands where there are more than one or two Quality Advisors. Coordinating the assignments and activities of the QAs who work with QMBs and PATs helps ensure that all teams receive guidance and that there is consistency in how the teams approach their work, report results, etc. Many times QAs need a technical advisor for problems or questions they can't resolve. As the QA for the command's highest level team, the Coordinator is the usual source for this guidance.

- **Maintains resource library**

As we learned earlier in this course, TQL requires continuous learning. To facilitate the educational process, most commands build a library of training materials, videos, books, and journals. These media can by a critical factor in successful implementation because these resources are the tools for increasing knowledge. The TQL Coordinator typically decides what materials to purchase, maintains the library, and coordinates the distribution of books, videos, etc. for optimal effect.

- **Documents command efforts**

Experience is a powerful teacher, and most organizations find that keeping records of team decisions, successes, and failures, is key to continuous learning and improvement. Methods for recording, preserving, and publicizing TQL efforts should be established early in the command's TQL journey because reconstructing records is difficult. The TQL Coordinator is the historian for command-wide activities and ensures individual team records are maintained as appropriate.

- **Networks with other organizations**

Networking with other total quality practitioners and internal consultants is more a strategy than a role, yet its importance is so great that most Coordinators view it as an integral function of the position. Talking with others and sharing experiences provide invaluable data for integrating and adapting total quality concepts and methods to your organization. New knowledge and skills are gained from networking with individuals from similar or nearby DON commands, attending professional conferences, and establishing a liaison with the TQL Coordinator at the command's headquarters or higher echelon office.

Quality Advisor

- **Facilitates team process**
- **Provides guidance on tools and methods**
- **Conducts team training**

Quality Advisor

A Quality Advisor is a team **consultant** who works with QMBs and PATs. Not a *member* of the team, the QA is -- as the name implies -- an *advisor* who assists quality improvement teams.

- **Facilitates team process**

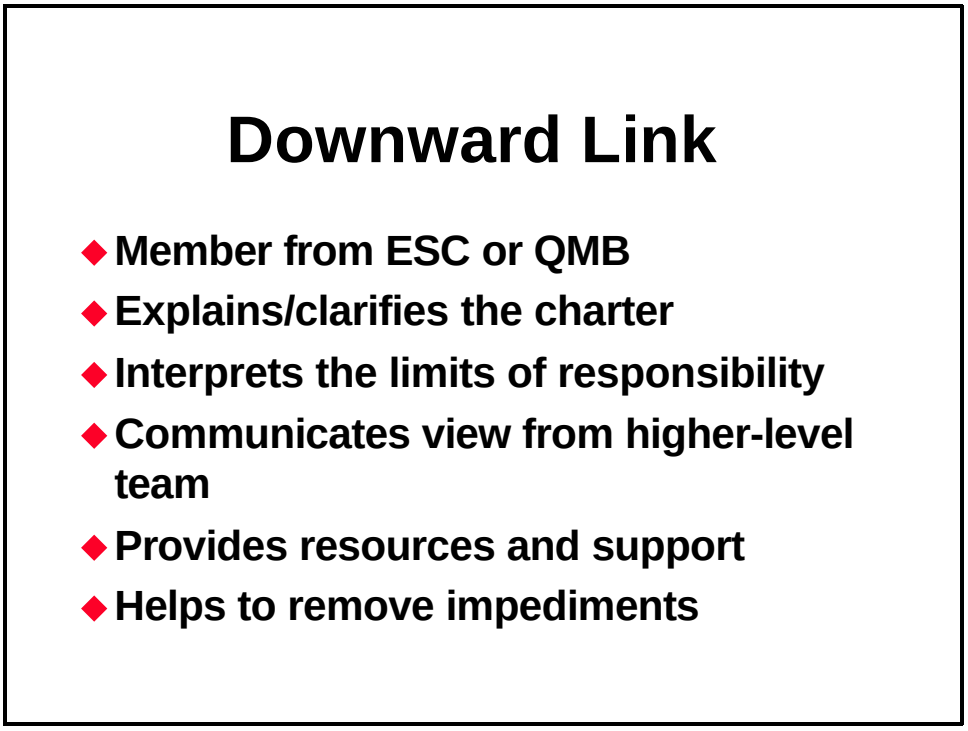
Building a "high-performing" team that works together effectively and takes full advantage of members' unique talents does not come naturally or easily for most groups. Teams need help to learn how to run effective meetings, to actively listen to each other, and to make decisions by consensus. The role of the QA is to facilitate the team (group) process by helping the team learn and apply these skills.

- **Provides guidance on tools and methods**

The QA is also the team's technical advisor for the knowledge and skills to apply total quality concepts and methods. For example, the Quality Advisor helps the team define the process under study, decide what data to collect, and identify opportunities for improvement. The QA does this, not by participating in the work, but by showing the team how to use and apply graphic, language data, and planning tools.

- **Conducts team training**

The Quality Advisor is both a helper and a teacher. The QA provides just-in-time team training in principles and methods. Some training may be formal (several days of up-front classroom training in *Fundamentals* for example). But most skills training should be provided in smaller "pieces" just before the team needs to apply the tools. As the team gains experience and confidence, the QA typically helps them develop both task-oriented and group process skills by gradually turning the reigns over to the team leader. This subject is discussed more fully in the *Team Skills and Concepts* course.



Downward Link

A linking role is a necessary part of the team structure. This reflects concern for:

- Ensuring a two-way flow of information between higher-level and lower-level teams.

- Reducing fear.

- Ensuring that responsibility for reducing variation due to the system or local problems is properly identified.

- Preserving the chain of command and formal accountability.

- Providing resources to the teams.

To accomplish these functions, the teams are **linked vertically** for systematic communication and decision-making to carry out the defined objectives for process improvement. Two links are needed -- the downward link and the upward link. Each linking function is carried out by a separate person and has its own specific duties. First, let's look at the role of the **downward link**.

- **Member from ESC or QMB**

The downward link is a member of the ESC when linking to a QMB, or a member of a higher-level QMB when linking to a lower-level QMB or a PAT. The downward link should have some knowledge of the particular part of the process under study by the lower-level team. The downward link should attend all initial lower-level team meetings as a non-voting member of the lower-level QMB or PAT. Attendance at every meeting might not be necessary if the team is functioning at a high level. The downward link should always be in tune with the team and understand where the team is should it need particular help.

The downward link **never** assumes the position of team leader. If the downward link becomes the team leader, it is difficult for the team to take ownership in the results of the team effort. Team members may be afraid to contribute to the effort because of the position or rank of the team leader.

- **Explains/clarifies the charter**

The downward link, **as a representative of higher management, brings the charter** to the subordinate QMB or PAT team leader. The downward link's job is to describe and interpret the charter thoroughly and to describe the intent of the charter to the team leader.

- **Interprets the limits of responsibility**

While the charter should clearly identify the scope, time, and resources to be applied, some situations may arise that require the downward link to interpret the limits of responsibility for the lower-level team.

Some team leaders are afraid to make decisions and instead may try to leave the decision to their downward link. When this happens, the downward link should tell the team leader that the decision-making authority exists with the team leader and the team.

- **Communicates view from higher-level team**

A downward link from a QMB should be aware that lower-level teams, because of their narrow view within a part of the process, may not have full knowledge of the process. The downward link must be alert to this because some problems may need to be referred to an appropriate higher-level team for action to prevent suboptimization of the system.

- **Provides resources and support**

As a member of a higher-level team and the bearer of the charter, the downward link is responsible for providing resources to the lower-level team. The primary resource is time. Other resources may be information, training, or special tools.

- **Helps to remove impediments**

The downward link must identify and remove **impediments** to the work of the team. Impediments may be ineffective or broken tools that delay or prevent task completion and frustrate subordinates.

Unnecessary bureaucratic requirements are another impediment. Many forms may require several signatures that may not be really necessary. The downward link should try to eliminate unnecessary requirements by the ESC and QMBs.

Team Leader

- Leads the team
- Conducts team meetings
- Facilitates team functioning
- Reports team results to chartering team

Team Leader

◆ **Leads the team**

The Team Leader is the person who leads the team in their process improvement effort. Team Leaders should be involved in the process being studied to provide guidance to the team members and take part in the work.

The Team Leader should have a vested interest in the process improvement effort, help team members overcome conflicts, and implement changes the team recommends that fall within the boundaries of the charter. The role of the Team Leader is discussed in more detail in the *Team Skills and Concepts* course.

◆ **Conducts team meetings**

The Team Leader schedules and chairs team meeting. Preparing and adhering to the agenda, encouraging full participation, and resolving differences are some of the tasks involved in making the meeting productive.

◆ **Facilitates team functioning**

Another role is to develop the team into a cohesive group. The Team Leader shares responsibilities with other team members and allows members the opportunity to learn from experience. It is the Team Leader's job to establish and maintain an atmosphere for the team members to function effectively.

★ **Additional Information:** Sometimes outside facilitators should be used to help guide team meetings, particularly in the early stages of team development.

◆ **Reports team results to chartering team**

Periodically, the ESC or a higher-level QMB will want a status report on the activities of a team. It might seem natural for this to be given by the downward link, but this would not foster the spirit of two-way communication and participation. For this reason, and to encourage the Team Leader's sense of ownership, the Team Leader serves as the **Upward Link** and reports the team's results to the higher-level team.

★ **Additional Information:** The upward links reports progress through written reports and verbal briefings. The downward link should not be the one to report progress to higher-level teams. This is the job of the team leader as the upward link. This is important, not just for purposes of accountability, but also to minimize bias and help preserve trust between the team members and the downward link. It could easily be seen as a "grab for glory" if the downward link reported results. The downward link is there to help. Once the members of the team believe this, fear and distrust are minimized.

Involving employees at all levels in the total quality effort is important and necessary. One aspect of employee involvement is that of reporting the results of team efforts. If the team members, as well as the Team Leader, participate in the presentations, a sense of ownership and recognition is fostered. It also helps in reducing fear if the higher-level team treats the upward link with the respect given to all who are working for improvement.

The Team Leader should not be required to make a formal report to the next higher-level team every time the team meets. If this is a requirement, it could send the wrong message -- that the emphasis is on inspecting work or immediate problem-solving rather than process improvement.

The Team Leader also may participate in meetings of the higher-level team. For example, a higher-level team may hold periodic meetings with the lower-level team leaders to involve them in planning future efforts. This not only encourages participation, it helps avoid suboptimization of the system.

★ **Additional Information:** Often, a Team Leader or member from a team possesses expertise required by a higher-level team. In the spirit of full participation and communication, this person should be a temporary member of the higher-level team who joins the higher-level team for a specific purpose. The higher-level team may benefit from that person's special knowledge.

The feature of the Team Leader as an upward link preserves the hierarchical nature of the formal organization and respects the chain of command. In this sense, the link idea is not a totally new idea. What **is** new is the way the links are formed and integrated into the new management structure for quality improvement. This new structure for quality improvement focuses on better communication horizontally and vertically, teamwork, and measurement and action on systems, processes, products, and services.

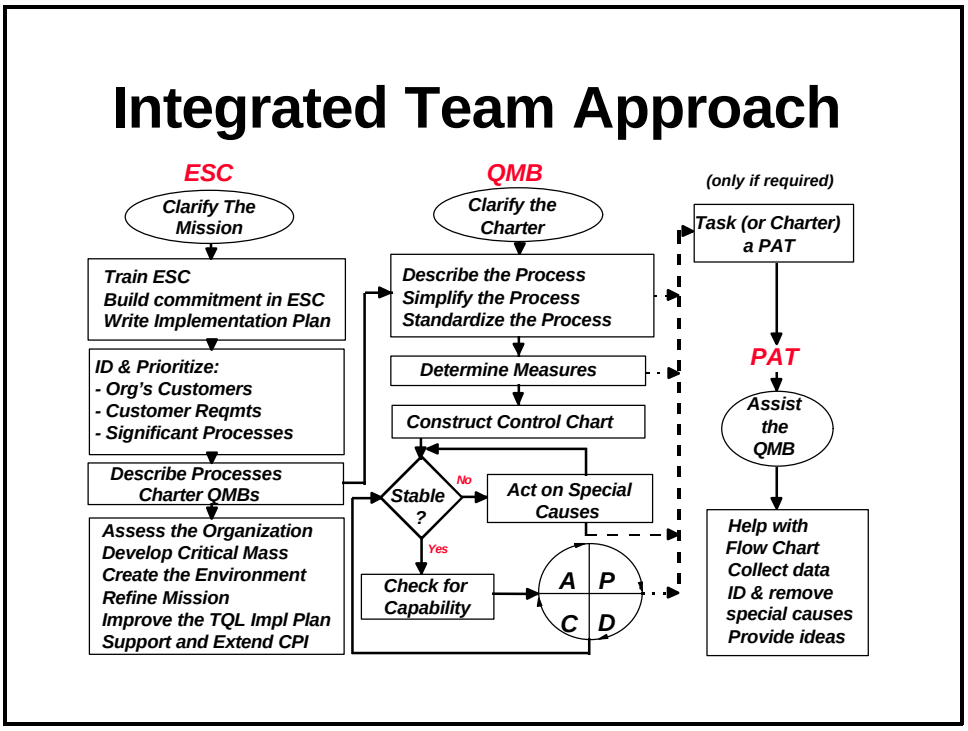
Recorder and Team Member

- **Recorder**
  - **Records meeting minutes**
  - **Maintains team folder**
- **Team Member**
  - **Should have process knowledge**
  - **Active participant**

Recorder and Team Member

- **Recorder**
  - Records meeting minutes and distributes as appropriate.
  - Maintain team records and any other team documentation.
  - Not a permanent assignment. The role of the recorder rotates among the team members.
- **Team Member**
  - Should have process knowledge.
  - All members should be active in the process improvement effort.

Training of team member and recorder will be provide by the Team Leader or Quality Advisor.



Integrated Team Approach

The Integrated Team Approach is intended to depict a general framework of process management activities relative to the various quality improvement teams. The figure is not intended to follow the normal rules for a flowchart, nor to be a rigid model for process management. Rather, it illustrates those integrated activities required, at a macro level.

Executive Steering Committee (ESC)

The activities shown are where they might occur in a start-up sequence for the ESC. The ESC should not charter a QMB until it has completed Identifying and Prioritizing Significant Processes. It is essential for the ESC to learn about process management, to become committed to doing it, and to produce an implementation plan.

After prioritizing significant processes, it is appropriate to charter a QMB consisting of owners of the top priority process. In order to put the right people on the QMB, it is usually necessary for the ESC to develop a macro flow chart of the significant process. The macro flowchart will help identify the owners of the sub-processes which make up the significant process. Those sub-process owners are probably the right people for QMB membership. A macro level flowchart is included as part of chartering the QMB.

Eventually, depending on available time, resources and energy, a QMB will be chartered for each of the organization's mission essential (significant) processes. After it is chartered by the ESC, the QMB then proceeds with process improvement while the ESC continues with its other process management responsibilities.

Note: The SLS course covers in greater detail the activities for command leaders and the ESC.

Quality Management Board (QMB)

The ESC must understand the activities of a QMB for two reasons. First, the ESC will have oversight of the QMBs which are working on the significant processes of the command -- so it is an inherent responsibility to know what the QMBs are doing. Second, the ESC will be actually performing the functions of a QMB on a pilot process or two, and certainly on the process of implementing TQL itself.

Process management involves putting in place all elements necessary for **process improvement** to occur and to continue to occur within the command. Since the ESC members are the owners of the TQL implementation process, they must know how to function as a QMB.

Process Action Team (PAT)

Sometimes it is necessary to create a formal team to help the QMB with process improvement. The workers in the process are the subordinates of the QMB members. The QMB can usually get short term advice or assistance from those workers, simply by requesting it from them. When a long term effort is required, a PAT may be appropriate. All members of the team normally come from the same organizational element whose head is on the QMB -- that is, the PAT is not cross-functional.

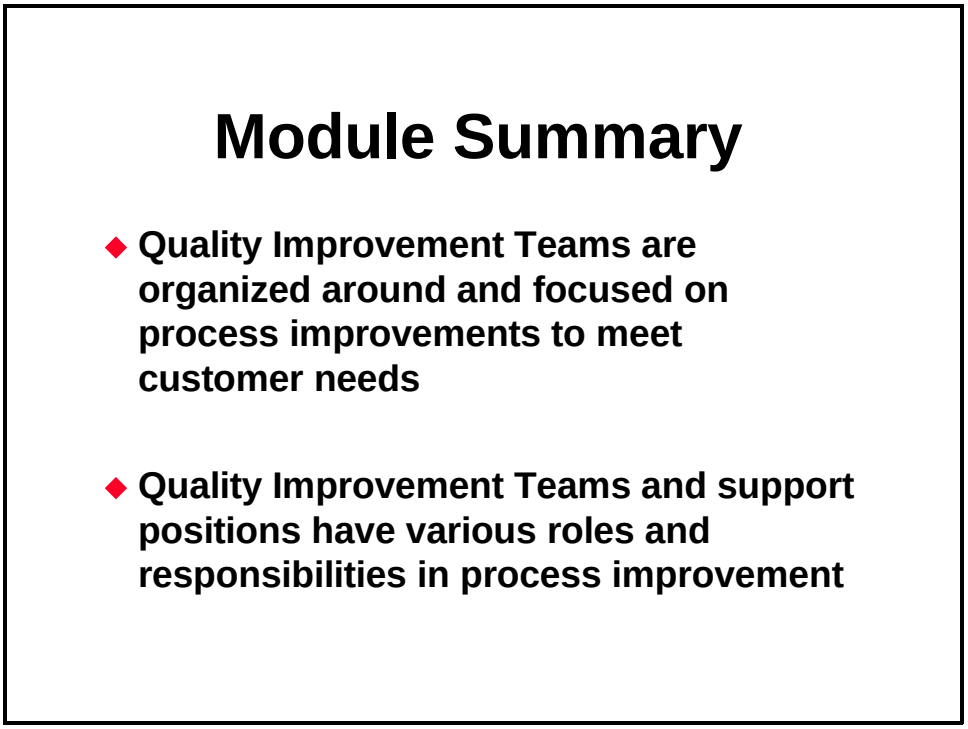
A QMB may need several PATs. The "white space" coordination is dealt with at the QMB level, not at the PAT level. Effective communication between the QMB (process owners) and their respective subordinates (process workers) is essential. A worker should not feel they must be on a PAT in order to make contributions toward process improvement.

☺ **Discussion Questions:**

1. What are some benefits of cross-functional teams?

Cross-functional teams:

- *Manage the "white space"*
- *Combine expertise from different areas*
- *Work on processes that produce products/services most important to customers/mission*
- *Open up communication in the organization*
- *Promote cooperation*
- *Provide for more creative ideas*
- *Reduce the chance of suboptimizing the organization*
- *Discourage **we-they** thinking*



Module Summary

- **Quality Improvement Teams are organized around and focused on process improvements to meet customer needs**

You learned that a team structure enables the people who are most involved in a process to come together to work on improving the process. Teams are structured around the organization's significant processes. Working in teams and focusing on the process means a change in how we communicate with each other. We are no longer isolated individuals. We are customers and suppliers of each other. You learned this is a new way of thinking and requires a change in management approach.

- **Quality Improvement Teams and support positions have various roles and responsibilities in process improvement**

You learned that there are three different types of teams. The ESC is composed of the top leaders (system/resource owners and managers) of an organization. The primary function of the ESC is to lead and manage the quality transformation.

QMBs are composed of middle managers who are the process owners in the organization. The primary role of the QMB is to work with the details of planning and evaluating the process improvement efforts identified by the ESC.

PATs are composed of process workers, those people most involved in a specific process or area within the process. The primary role of the PAT is to collect data and solve local problems.

You also learned that downward and upward links are necessary parts of the team structure which links the teams vertically.

And finally, you learned that the organization needs some TQL support positions to help in implementing total quality, the TQL Coordinator and Quality Advisors.